

## Section 14. Automation- En Route

### 5-14-1. CONFLICT ALERT (CA) AND MODE C INTRUDER (MCI) ALERT

a. When a CA or MCI alert is displayed, evaluate the reason for the alert without delay and take appropriate action.

**NOTE-**

*DARC does not have CA/MCI alert capability.*

**REFERENCE-**

*FAAO 7110.65, Safety Alert, Para 2-1-6.*

b. If another controller is involved in the alert, initiate coordination to ensure an effective course of action. Coordination is not required when immediate action is dictated.

c. Suppressing/Inhibiting CA/MCI alert.

1. The controller may suppress the display of a CA/MCI alert from a control position with the application of one of the following suppress/inhibit computer functions:

(a) The Conflict Suppress (CO) function may be used to suppress the CA/MCI display between specific aircraft for a specific alert.

**NOTE-**

*See NAS-MD-678 for the EARTS conflict suppress message.*

(b) The Group Suppression (SG) function shall be applied exclusively to inhibit the displaying of alerts among military aircraft engaged in special military operations where standard en route separation criteria does not apply.

**NOTE-**

*Special military operations where the SG function would typically apply involve those activities where military aircraft routinely operate in proximities to each other that are less than standard en route separation criteria; i.e., air refueling operations, ADC practice intercept operations, etc.*

2. The computer entry of a message suppressing a CA/MCI alert constitutes acknowledgment for the alert and signifies that appropriate action has or will be taken.

3. The CA/MCI alert may not be suppressed or inhibited at or for another control position without being coordinated.

### 5-14-2. EN ROUTE MINIMUM SAFE ALTITUDE WARNING (E-MSAW)

a. When an E-MSAW alert is displayed, immediately analyze the situation and, if necessary, take the appropriate action to resolve the alert.

**NOTE-**

1. *Caution should be exercised when issuing a clearance to an aircraft in reaction to an E-MSAW alert to ensure that adjacent MIA areas are not a factor.*

2. *DARC does not have E-MSAW capability.*

**REFERENCE-**

*FAAO 7110.65, Safety Alert, Para 2-1-6.*

b. The controller may suppress the display of an E-MSAW alert from his/her control position with the application of one of the following suppress/inhibit computer functions:

1. The specific alert suppression message may be used to inhibit the E-MSAW alerting display on a single flight for a specific alert.

2. The indefinite alert suppression message shall be used exclusively to inhibit the display of E-MSAW alerts on aircraft known to be flying at an altitude that will activate the alert feature of one or more MIA areas within an ARTCC.

**NOTE-**

1. *The indefinite alert suppression message will remain in effect for the duration of the referenced flight's active status within the ARTCC unless modified by controller action.*

2. *The indefinite alert suppression message would typically apply to military flights with clearance to fly low-level type routes that routinely require altitudes below established minimum IFR altitudes.*

c. The computer entry of a message suppressing or inhibiting E-MSAW alerts constitutes acknowledgment for the alert and indicates that appropriate action has or will be taken to resolve the situation.

### 5-14-3. COMPUTER ENTRY OF ASSIGNED ALTITUDE

The data block shall always reflect the current status of the aircraft unless otherwise specified in a facility directive. Whenever an aircraft is cleared to maintain an altitude different from that in the flight plan database, enter into the computer one of the following:

**NOTE-**

*A facility directive may be published deleting the interim altitude computer entry requirements of subpara b. The directive would apply to those conditions where heavy traffic or sector complexity preclude meeting these entry requirements.*

**REFERENCE-**

*FAAO 7210.3, Waiver to Interim Altitude Requirements, Para 8-2-7.*

a. The new assigned altitude if the aircraft will (climb or descend to and) maintain the new altitude, or

b. An interim altitude if the aircraft will (climb or descend to and) maintain the new altitude for a short period of time and subsequently be recleared to the altitude in the flight plan database or a new altitude or a new interim altitude.

**NOTE-**

1. *Use of the interim altitude function will ensure that the data block reflects the actual status of the aircraft and eliminate superfluous altitude updates.*

2. *EARTS does not have interim altitude capability.*

**5-14-4. ENTRY OF REPORTED ALTITUDE**

Whenever Mode C altitude information is either not available or is unreliable, enter reported altitudes into the computer as follows:

**NOTE-**

*Altitude updates are required to assure maximum accuracy in applying slant range correction formulas.*

- a. When an aircraft reaches the assigned altitude.
- b. When an aircraft at an assigned altitude is issued a clearance to climb or descend.
- c. A minimum of each 10,000 feet during climb to or descent from FL 180 and above.

**5-14-5. SELECTED ALTITUDE LIMITS**

To ensure the display of Mode C targets and data blocks, take the following actions:

**NOTE-**

*Exception to these requirements may be authorized for specific altitudes in certain ARTCC sectors if defined in appropriate facility directives and approved by the regional AT division manager.*

a. NAS en route Stage A/DARC, display altitude limits in the "R" CRD when operating on NAS en route Stage A or on the PVD/MDM when operating on DARC and select the display filter keys on the PVD/MDM to include, as a minimum, the altitude stratum of the sector; plus

1. 1,200 feet above the highest and below the lowest altitude or flight level of the sector where 1,000 feet vertical separation is applicable; and

2. 2,200 feet above the highest and below the lowest flight level of the sector where 2,000 feet vertical separation is applicable.

b. EARTS. Display the EARTS altitude filter limits to include, as a minimum, the altitude stratum of the sector; and

1. 1,200 feet above the highest and below the lowest altitude or flight level of the sector where 1,000 feet vertical separation is applicable; and

2. 2,200 feet above the highest and below the lowest flight level of the sector where 2,000 feet vertical separation is applicable.

**REFERENCE-**

*FAAO 7110.65, Alignment Accuracy Check, Para 5-1-2.*

**5-14-6. SECTOR ELIGIBILITY**

The use of the OK function is allowed to override sector eligibility only when one of the following conditions is met:

- a. Prior coordination is effected.
- b. The flight is within the control jurisdiction of the sector.

**5-14-7. COAST TRACKS**

Do not use coast tracks in the application of either radar or nonradar separation criteria.

**5-14-8. CONTROLLER INITIATED COAST TRACKS**

a. Initiate coast tracks only in Flight Plan Aided Tracking (FLAT) mode, except "free" coast tracking may be used as a reminder that aircraft without corresponding computer-stored flight plan information are under your control.

**NOTE-**

1. To ensure tracks are started in FLAT mode, perform a start track function at the aircraft's most current reported position, then immediately "force" the track into coast tracking by performing another start function with "CT" option in field 64. Making amendments to the stored route with trackball entry when the aircraft is rerouted, and repositioning the data block to coincide with the aircraft's position reports are methods of maintaining a coast track in FLAT mode.

2. DARC does not have the capability to initiate coast tracks.

b. Prior to initiating a coast track, ensure the following:

1. A departure message or progress report corresponding with the aircraft's current position is entered into the computer.

2. The track being started is within the Posted Time Update Interval (PTUI) of the aircraft's computer-estimated position and the Flight Plan Track Position Difference (FTPD) distance of the aircraft's flight plan route.

**NOTE-**

FTPD is an automation parameter, normally set to 15 miles, that is compared with the tracked target's perpendicular distance from the stored flight plan route. If the track is within the parameter miles, it is eligible for "FLAT tracking." PTUI is an automation parameter, normally set to 3 minutes, that is compared against the difference between the calculated time of arrival and the actual time of arrival over a fix. If the difference is greater than PTUI, the flight plan's stored data will be revised and fix-time update messages will be generated.

c. As soon as practicable after the aircraft is in radar surveillance, initiate action to cause radar tracking to begin on the aircraft.